

CLAIMS

1. An interface connectable as a default host to a peripheral or as a default peripheral to a host, for serial data communication between host and peripheral during a session, and comprising:
 - 5 automated means for periodically checking a connection by periodically starting a session when connected as a default host and
 - automated means for periodically checking a connection by periodically requesting a session when connected as a default peripheral.
- 10 2. An interface as claimed in claim 1, wherein a session identifies the presence of a connected device.
3. An interface as claimed in claim 1 or 2, comprising:
 - 15 a power signal contact; and
 - at least one data signal contact;
 - wherein, when connected as a default host, the means for periodically checking a connection is operable to periodically apply a voltage to the power signal contact and receive a response via the data signal contact.
- 20 4. An interface as claimed in claim 1, 2 or 3, comprising
 - a power signal contact; and
 - at least one data signal contact;
 - wherein, when connected as a default peripheral, the means for periodically
 - 25 checking a connection is operable to periodically request a session via the power signal contact and the data signal contact and receive a response via the power signal contact.
5. An interface as claimed in any preceding claim, wherein a session
- 30 identifies the capabilities of a connected device.
6. An interface, for serial data communication between a host and a

peripheral, connectable as a default host or a default peripheral and comprising :

a power signal contact;

at least one data signal contact;

5 transmission means for repeatedly sending a poll signal via the power signal contact; and

reception means for receiving a reply signal via the power signal contact, if the device is connected as a default peripheral and the data signal contact if the device is connected as a default host.

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7. An interface as claimed in claim 6, wherein the poll signals are sent periodically as a train of voltage pulses.

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8. An interface as claimed in claim 7, wherein each pulse of the train has a duration greater than 200ms.

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9. An interface as claimed in claim 7 or 8, the poll signals have a periodicity of the order of 1 Hz such that each pulse of the train is separated from its neighbour by the same duration of the order 1 second.

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10. An interface as claimed in any one of claims 6 to 9, wherein the transmission means is operable to repeatedly send a poll signal only via the power signal contact if the device is connected as a default host.

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11. An interface as claimed in any one of claims 6 to 10, wherein the transmission means is operable to repeatedly send both a first poll signal via the power signal contact and a second poll signal via the data signal contact, if the device is connected as a default peripheral.

12. An interface as claimed in any one of claims 6 to 11, further comprising an identifier contact for identifying whether the interface is connected to a peripheral or a host.

13. An interface as claimed in any one of claims 6 to 12, wherein the reply message identifies the presence of connected device.

5 14. An interface as claimed in any one of claims 6 to 13, wherein a session is started that identifies the capabilities of a connected device.

15. A host interface, for serial data communication between a host and a connected peripheral during a session:

10 a power signal contact for supplying power to the connected peripheral;
at least one data signal contact for serially communicating data between the host and connected peripheral; and
means for periodically checking the connection to the peripheral comprising:
transmission means for repeatedly sending a poll signal via the power signal
15 contact; and
reception means for receiving a reply signal via the data signal contact.

16. A host interface as claimed in claim 15, arranged to periodically start a session on its own initiative or in response to periodic requests from the
20 connected peripheral.

17. A peripheral interface, for serial data communication between a connected host and a peripheral during a session:

a power signal contact for receiving power from the connected host;
25 at least one data signal contact for serially communicating data between the connected host and peripheral; and
means for periodically checking the connection to the host comprising:
transmission means for repeatedly sending a first poll signal via the power
signal contact and for repeatedly sending a second poll signal via the data
30 signal contact; and
reception means for receiving a reply signal via the power signal contact.

18. A peripheral interface as claimed in claim 17, arranged to periodically request a session.

5 19. An interface as claimed in claim 18, wherein each request has a duration less than 100ms.

10 20. A method of checking a serial data connection between a device connected as host and a device connected as a peripheral, comprising:
periodically starting a session at the device connected as host

15 21. A method of checking a serial data connection between a device connected as host and a device connected as a peripheral, comprising:
periodically requesting the start of a session at the device connected as a peripheral.

20 22. A method of checking a serial data connection between a dual mode device and another device, comprising:
periodically starting a session at the device connected as host when the dual mode device is connected as a default host; and
periodically requesting the start of a session at the device connected as a peripheral when the dual-mode device is connected as a default peripheral.

25 23. An interface connectable as a default host to a peripheral or as a default peripheral to a host, for serial data communication between host and peripheral during a session, and comprising:
a transceiver arranged to periodical checking a connection by periodically starting a session when connected as a default host and by periodically requesting a session when connected as a default peripheral.

30 24. An interface, for serial data communication between a host and a peripheral, connectable as a default host or a default peripheral and comprising :

a power signal contact;

at least one data signal contact; and

electronic circuitry for repeatedly sending a poll signal via the power signal contact and for receiving a reply signal via the power signal contact, if the device is connected as a default peripheral and via the data signal contact if the device is connected as a default host.

25. A host interface, for serial data communication between a host and a connected peripheral during a session:

- 10 a power signal contact for supplying power to the connected peripheral;
- at least one data signal contact for serially communicating data between the host and connected peripheral; and
- electronic circuitry for periodically checking the connection to the peripheral, wherein the electronic circuitry is arranged to repeatedly send a poll signal via the power signal contact and is arranged to receive a reply signal via the data signal contact.

26. A peripheral interface, for serial data communication between a connected host and a peripheral during a session:

- 20 a power signal contact for receiving power from the connected host;
- at least one data signal contact for serially communicating data between the connected host and peripheral; and
- a electronic circuitry for periodically checking the connection to the host, wherein the electronic circuitry is arranged to repeatedly send a first poll signal via the power signal contact and to repeatedly send a second poll signal via the data signal contact and is arranged to receive a reply signal via the power signal contact.